

Appendix 3-2a: Non-ECP Water Quality Sampling Sites, Monitoring Schedule, and Flow Volumes

Table 1. Water quality monitoring schedule for non-Everglades Construction Project (non-ECP) discharge structures and additional upstream monitoring locations.

AREA	Non-ECP PERMIT STRUCTURE	WATER QUALITY SAMPLING SITE	WATER QUALITY MONITORING SCHEDULE						WATER QUALITY COMMENTS
			Physical	Nutrients	Major Ions	Trace Metals	Pesticides Water	Pesticides Sediment	
INTO	ACME1DS	ACME1DS	BWF/M	BWF/M	QTR	SA	QTR	SA	
	ACME1 + (Upstream of ACME1DS)	VOW1		Weekly Flowing (autosampler)					Sampling conducted by Village of Wellington. TP collected by autosampler.
	G-94D	G94D	BWF/M	BWF/M	QTR	SA	QTR	SA	
	ACME2 + (Upstream of G94D)	VOW2		Weekly Flowing (autosampler)					Sampling conducted by Village of Wellington. TP collected by autosampler.
	G-123	G123	BWF/M	BWF/M (autosampler)	QTR	SA	QTR	SA	
	S-9	S9	BWF/M	Weekly Flowing (autosampler)	QTR	SA	QTR	SA	TP collected by autosampler.
	S-9A	S9A	BWF/M	BWF/M except TP-WF/M Grab (autosampler)	QTR				New station, sampling started in WY2003
	S-14	S14	BWF	BWF	QTRF	SAF			
	S-18C	S18C	BWF/M	BWF/M (autosampler)	QTR	SA	QTR	SA	
	S-140	S140	BWF/M	BWF/M (autosampler)	QTR	SA	QTR	SA	TP collected by autosampler, nitrogen species collected by grab
	S-175	S175	BWF/M	BWF/M	QTR	SA			
	S-190	S190	BWF/M	BWF/M (autosampler)	QTR	SA	QTR	SA	TP collected by autosampler, nitrogen species collected by grab
	S-332	S332	BWF/M	BWF/M	QTR	SA	QTR	SA	
	NSID1	NSIDSP01	BWF	BWF	QTRF	SAF	QTRF	SAF	TP collected by autosampler
WITHIN		S38B	BWF	BWF	QTRF	SAF	QTRF	SAF	
	G-64	G64	BWF	BWF	QTRF *				Monitoring Fe, Mg, Ca phased out *
	G-69	G69	BWF	BWF	QTRF *				Monitoring Fe, Mg, Ca phased out *
	G-71, S-346, S-347	S12D	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *
	S-10E	S10E	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *
	S-141	S34	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *
	S-142	S142	BWF/M	BWF/M	QTR *		QTRF	SAF	Monitoring Fe, Mg, Ca phased out *
	S-143	S11A	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *
	S-144	S144							Discontinued sampling in favor of surrogate location at S-145 *
	S-145	S145	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *
	S-146	S146							Discontinued sampling in favor of surrogate location at S-145 *
	S-151	S151	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *
	S-339, S-340	C123SR84	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *
	G-94A, G-94B, G-94C	G94B	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *
FROM	S-31	S31	BWF/M	BWF/M	QTR *		QTR	SA	Monitoring Fe, Mg, Ca phased out *
	S-34	S34	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *
	S-38	S38	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *
	S-39	S39	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *
	S-197	S197	BWF	BWF	QTRF *				Monitoring Fe, Mg, Ca phased out *
	S-333	S333	BWF/M	BWF/M	QTR	SA			
	S-334	S334	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *
	S-337	S31	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *
	S-343A, S-343B	US41-25	BWF/M	BWF/M	QTR *				Monitoring Fe, Mg, Ca phased out *
	S-344	S344	QTR	QTR	QTR *				Monitoring Fe, Mg, Ca phased out *
	S-174 +	S176	BWF/M	BWF/M	QTR	SA	QTR	SA	
C-111 BASIN	S-177 +	S177	BWF/M	BWF/M	QTR	SA	QTR	SA	
	S-178 +	S178	BWF/M	BWF/M	QTR	SA	QTR	SA	
		S331-173	BWF/M	BWF/M	QTR	SA			
	S-331 +, S-173 +	S331					QTR	SA	S173 is not listed in Permit, but is adjacent to and flows in same direction as S331
	S332-B	S332B	BWF	BWF			QTR		
	Berm B3	BurmB3	BWF	BWF			QTR		
	S-332C	S332C	BWF	BWF			QTR		
	S-332D	S332D & S332DAS	BWF	BWF			QTR		S-332D is not listed in Permit, but it needs to provide information

Notes: 1) Water quality sample site is located on upstream side of permitted structure, unless otherwise noted with different representative sampling location.

2) Structure names with a "+" are upstream of Non-ECP INTO structures and are additional monitoring locations.

3) * indicates monitoring requirement eliminated in the November 1999 Non-ECP Permit Modification.

4) Table Legend:

BWF/M = Biweekly if Flowing/Otherwise Monthly

SA = Semiannually

BWF = Biweekly if Flowing

SAF = Semiannually if Flowing

QTR = Quarterly

1 WS - 1 DS = 1 Wet Season and 1 Dry Season

QTRF = Quarterly if Flowing

Table 2. Flow volume and annual flow-weighted mean total phosphorus (TP) concentrations for non-ECP structures during Water Year 2005 (WY2005) (May 1, 2004 through April 30, 2005).

AREA	NON-ECP PERMIT STRUCTURE	WATER QUALITY SAMPLING SITE	FLOW		Monthly Flow Volumes (acre-ft) (May 1, 2004 - April 30, 2005)												Total Flow Volume (acre-ft)	Annual Flow Weighted Mean TP (ppb)
			STATION	DBKEY	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr		
INTO	ACME1DS	ACME1DS	n/a	n/a	See flow data from ACME 1												n/a	126
	ACME1 + (Upstream of ACME1DS)	VOW1	ACME1	OH647	134	0	0	1,189	7,188	2,306	231	0	0	0	986	284	12,317	133
	G-94D	G94D	n/a	n/a	See flow data from ACME 2												n/a	213
	ACME2 + (Upstream of G94D)	VOW2	ACME2	OH648	421	75	0	1,089	6,152	2,027	306	0	0	0	1,032	144	11,246	212
	G-123	G123	G123_P	K5481	0	0	0	0	0	0	0	0	0	0	0	0	0	NPF
	S-9	S9	S9_P	K5483	1,673	1,959	4,847	35,775	31,054	7,708	0	0	400	1,669	8,006	311	93,403	19
	S-9A	S9A	S-9A	TA415	739	1,912	5,497	7,240	4,043	14,963	3,669	1,188	6,395	1,996	6,528	2,415	56,584	12
	S-14	S14	S14_C	K5485	0	0	0	0	0	0	0	0	0	0	0	0	0	NPF
	S-18C	S18C	S18C_S	15760	90	335	5,154	21,124	18,460	25,174	21,506	5,846	1,608	756	384	251	100,689	9
	S-140	S140	S140_TOT	06754	6	11,863	13,988	46,048	34,668	14,857	4,035	0	985	401	8,469	2,657	137,976	42
	S-175	S175	S175_C	15752	0	1	0	0	0	366	1	0	0	5	0	0	374	5
	S-190	S190	S190_S	K5501	7	2,034	4,387	45,730	33,401	6,995	284	50	21	4	1,613	54	94,581	97
	S-332	S332	S332_P	15753	0	0	0	0	0	1	0	1	39	1	535	0	577	NPF
	NSID1	NSIDSP01	NSPRNG_C2A	PS225	0	0	0	0	354	0	0	0	0	0	0	0	354	20
		S38B	n/a	n/a	See flow data from NSPRNG_C2A													nd
WITHIN	G-64	G64	G64_C	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	G-69	G69	G69_C	K5480	276	397	381	281	334	503	498	145	146	92	113	57	3,224	NPF
	G-71, S-346, S-347	S12D	S12D_S	FE774	4,445	0	0	12,373	44,154	69,245	46,352	37,031	2,803	0	270	5,837	222,510	11
	S-10E	S10E	S10E_C	K5484	0	0	0	0	0	0	0	0	0	0	0	0	0	nd
	S-141	S34	S141_W	K5493	0	0	0	0	0	300	182	0	0	0	0	0	482	15
	S-142	S142	S142_C	K5494	2,245	4,015	2,853	1,824	1,370	19,031	19,833	10,643	3,326	2,886	2,481	13,803	84,310	20
	S-143	S11A	S143_C	K5495	0	0	0	0	0	0	0	0	0	0	0	0	0	NPF
	S-144	S144	S144_C	K5497	0	0	583	7,148	3,454	6,685	1,583	5,922	2,210	0	318	2,368	30,270	nd
	S-145	S145	S145_C	K5498	0	0	1,496	8,475	4,137	7,681	1,723	7,508	4,872	33	528	3,159	39,611	8
	S-146	S146	S146_C	K5499	0	0	0	6,338	3,591	6,904	1,528	5,131	1,662	0	244	168	25,567	nd
	S-151	S151	S151_C	K5500	7,714	48,778	19,953	82	62	24,624	41,621	16,991	0	0	5,776	31,721	197,321	22
	S-333	S333	S333_S	15042	4,573	3	0	4,212	4,290	9,960	36,940	21,666	2,817	24,306	27,702	46,859	183,327	12
	S-339	C123SR84	S339_S	K5506	0	556	11,723	0	37,710	30,677	11,722	0	0	0	0	4,476	96,863	23
	S-340	C123SR84	S340_S	K5507	0	1,665	17,741	0	23,211	25,996	19,514	0	19,497	22,568	14,922	4,886	150,002	26

Notes: 1) Water quality sample site is located on upstream side of permitted structure, unless otherwise noted with different sampling location.

2) n/a indicates that flow and/or stage data is not available, or that structure is not appropriately instrumented to capture information.

3) Structure names with a "+" are upstream of Non-ECP INTO structures and are additional monitoring locations.

4) ACME1DS and G-94D are not instrumented for flow calculation. Flow-weighted mean TP concentration was determined by considering the TP data from these sites with the flow data from the upstream pump stations (ACME 1 and ACME 2, respectively).

5) G-123 structure is not monitored for flow (reported volume is an estimate), arithmetic mean TP was calculated by considering all samples collected.

6) S-14 is not instrumented for flow calculation, however operational records indicate no operation during the water year.

7) NPF indicates either structure closed or that no positive flow was recorded on sampling days, thus a flow-weighted mean could not be calculated.

Table 2. Continued.

AREA	NON-ECP PERMIT STRUCTURE	WATER QUALITY SAMPLING SITE	FLOW		Monthly Flow Volumes (acre-ft) (May 1, 2004 - April 30, 2005)												Total Flow Volume (acre-ft)	Annual Flow Weighted Mean TP (ppb)
			STATION	DBKEY	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr		
FROM	G-94A	G94B	G94A_C	TA422	4,926	7,719	7,240	0	0	0	0	1,094	2,643	4,816	0	1	28,439	289
	G-94B	G94B	G94A_C	TA423	0	0	0	0	0	0	0	0	0	0	296	2,614	2,910	30
	G-94C	G94B	G94C_C	TA424	0	0	0	0	0	0	0	5,735	6,025	2,925	1,231	2,697	18,614	227
	S-31	S31	S31_C	K5486	0	2	0	0	0	18,619	30,824	13,812	0	0	5,501	27,105	95,862	12
	S-34	S34	S34_C	K5487	1,859	4,941	3,342	0	1,133	18,709	20,637	12,953	4,420	3,381	1,824	17,986	91,185	18
	S-38	S38	S38_C	K5488	8,862	10,852	8,418	1	1,149	24,948	28,842	19,297	6,332	5,543	4,289	19,044	137,578	18
	S-39	S39	S39_S	K5489	7,158	6,665	3,510	2	1,331	13,977	825	2,337	540	2,570	5,635	7,278	51,828	54
	S-197	S197	S197_C	15763	0	0	0	0	0	2,359	0	0	0	0	0	0	2,359	6
	S-334	S334	S334_S	FB752	17	22	27	34	0	9,453	37,018	17,270	2,690	19,419	23,365	37,205	146,520	12
	S-337	S31	S337_C	K5505	5,318	12,313	21,006	0	0	0	0	0	0	0	0	3,352	41,989	16
	S-343A	US41-25	S343A_C	K5508	0	0	0	2,088	3,163	13,597	206	0	0	0	0	0	19,054	10
	S-343B	US41-25	S343B_C	K5509	0	0	0	2635	3255	13383	208	0	0	0	0	0	19,480	10
	S-344	S344	S344_C	K5511	0	0	0	1,191	1,778	7,901	112	0	0	0	0	0	10,982	11
C-111 BASIN	S-174 +	S176	S174_S	15769	0	0	0	0	0	0	0	0	0	0	1,211	2,048	3,258	10
	S-177 +	S177	S177_S	15772	525	766	5,763	14,570	14,082	17,482	15,130	4,919	2,409	4,456	4,332	2,188	86,621	6
	S-178 +	S178	S178_C	03952	0	0	0	0	0	2,615	0	0	0	0	0	0	2,615	57
	S-331 +	S331-173	S331_P	P6935	2,143	19	72	9,143	16,974	29,149	47,016	24,909	40	143	156	49	129,814	7
	S-173 +	S331-173	S173_C	FB759	5,428	7,881	5,439	0	0	0	0	2,073	6,565	7,194	8,016	9,007	51,604	10
	S-332B+	S332B	S-332B	PK929	20	17	19	4,045	3,073	7,457	8,185	6,431	2,711	7	40	44	32,050	8
	S-332D +	S332D	S-332D	MS947	11	0	554	7,706	15,211	20,373	20,991	10,197	1,437	0	0	0	76,480	14

- Notes: 1) Water quality sample site is located on upstream side of permitted structure, unless otherwise noted with different sampling location.
2) n/a indicates that flow and/or stage data is not available, or that structure is not appropriately instrumented to capture information.
3) Structure names with a "+" are upstream of Non-ECP INTO structures and are additional monitoring locations.
4) G-94A, G-94B, G-94C are not instrumented for flow calculations. Estimate provided for March 2001 when G-94C backflowed into WCA-1.
5) S-331 and S-173 flow records were combined to determine the annual flow-weighted mean TP.
6) NPF indicates either structure closed or that no positive flow was recorded on sampling days, thus a flow-weighted mean could not be calculated.